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ICE BREAKER



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EDITORIAL

The Tasmanian Polar Network is celebrating its 10th year of operation this year. As an inaugural member of the group, I have followed and participated in many of its activities, from developing policy to advertising its worth. Now, with over 50 members in the TPN, national and international attention is regularly drawn to the effectiveness of this rare combination of government, institutional and private business members, all working together to consolidate Tasmania's influence in Antarctic matters.

In addition, with the Midwinter Festival winning the Hobart City Council's Community Event of the Year Award 2002; funding being assured for this year's events, and Paul Cullen again acting as Chief Co-ordinator, the efforts of an even broader cross-section of the Antarctic community have been acknowledged and encouraged, and ICE BREAKER congratulates all those involved.

Last month I received a call from Kirstan Hutchinson, Editor of US magazine "Antarctic Sun". She had heard about "Ice Breaker" and the TPN and was interested to learn more about the TPN's significance to Antarctic resupply. After a visit to the Office of Antarctic Affairs, whose Director provided her with further information and arranged a meeting with Lara Giddings, it will be interesting to know if any mention is made of her Tasmanian visit in her next issue.

This edition contains two articles from former ANARE scientists who spent time on Macquarie Island in the 1950's or '60's. Both John Phillips and Peter Ford have contributed wonderfully descriptive stories of their stays on the island. As well, I have taken advantage of my second cousin's visit to Antarctica to include extra photos of scenes around Davis Station.

Readers may have seen the advertisement in the Mercury regarding the sale of the Igloo Satellite Cabin System. I believe the Igloos will have a better future if manufactured and marketed by a larger company. Details will be provided in the next edition.

Anthea Wallhead

Cover: Helicopter approaching one of the Rauer Islands, Antarctica. Photo: Robert Harman.

FROM LARA GIDDINGS' DESK



The year 2003 is looking positive for Antarctic Institutions and Antarctic activities in Tasmania. We ended 2002 with the Federal Government announcing the successful bid for the Antarctic Climate and Ecosystems Cooperative Research Centre and we began this year with the news that the 2002 Mid-Winter Festival had been awarded the Hobart City Council's Community Event of the Year. Congratulations to everyone involved in both the bid for the ACE CRC and also for the committee who were behind the successful festival.

This coming winter will once again see the State Government funding and helping to facilitate the Mid-Winter Festival, which will run from the 14th to the 22nd of June. The Festival will be highlighting our Antarctic connections as we head for the shortest day of the year, while giving Tasmanians an excuse to venture out of their warm homes to celebrate the positives of our winter months.

The Festival will continue to be based around our connections with Antarctica with the annual Mid-Winter Dinner, the Phillip Law lecture, a special Tasmanian Museum and Art Gallery exhibition on Macquarie Island and the Tasmanian Symphony Orchestra's performance of winter themed music being the centrepieces. Options for other events are still to be considered by the planning committee, however, I am told that so many ideas are already flowing into the Office of Antarctic Affairs, that it will be a matter of choosing what not to do.

In its inaugural year, the Festival attracted up to 27,000 people to the various activities held during the week, with some extra screenings of Antarctic films required to cater for demand. The Huskies also proved to be very popular, with the public joining the Huskies Picnic regardless of the cold and wet winter's day. Personally, amongst other activities, I enjoyed the Wayne Papps photographic exhibition, the TMAG Antarctica exhibition as well as the hot roasted chestnuts and glühwein at the opening night party. I am confident that this festival will continue to go from strength to strength.

The Tasmanian Government's Antarctic, Sub-Antarctic and Southern Ocean Policy Framework is on track to achieving its goals. A meeting held in early February of departmental officers showed that at least 27 of the 33 actions identified in the framework have been completed or are well underway. Important achievements since the policy was released include the appointment of a dedicated project officer in the Office of Antarctic Affairs, providing an annual grant of \$20,000 to the Tasmanian Polar Network and launching a new Antarctic conference incentive scheme.

The support shown by the different government departments as well as the University of Tasmania, demonstrates that the Antarctic sector is fundamental to Tasmania. We anticipate that the framework's actions will be signed off on within the next six months. Ideas for our next strategy to move the Antarctic sector forward in Tasmania are always welcome and a formal process of consultation will be initiated once the 2002 framework is completed.

Lara Giddings
Parliamentary Secretary on Antarctic Affairs



NEW TPN STRATEGIC PLAN A BOON FOR TASMANIA

The Tasmanian Polar Network, which was established almost a decade ago by the Groom Liberal Government, is certain to grow from strength to strength judging by its recently released strategic plan.

The TPN was established to provide a focal point for Antarctic and Southern Oceans development in June 1993 and brings together the State Government, private industry, education and research establishments and the Hobart Ports Corporation.

Its members – which now number more than 50 - provide a wide range of services to support vessels calling into Hobart on their way to or from Antarctica and the Southern Ocean.

That includes shipping and stevedoring services, waste processing and handling, the provision of Tasmanian food and produce, industrial gases, oils and photographic products and services.

Key strategies unveiled by the TPN at its December meeting include:

- Identifying current and emerging demands for cold region goods and services and promoting and improving Tasmania's capacity to satisfy those demands.
- Encouraging a sense of community between members of the TPN and a spirit of cooperative competition and;
- Increasing the profile of Hobart's Antarctic community, opportunities and services amongst the general public.

Tasmanians owe a debt of gratitude to the TPN for ensuring that the State has been able to capitalise on the economic advantages associated with being seen as an Antarctic gateway.

Its plans for the future will ensure that the State derives even more economic benefits from its closeness to the frozen continent.

On another issue, the Federal Government is to be congratulated for guaranteeing funding of more than \$23 million over the next seven years to enable the Antarctic Climate and Ecosystems Cooperative Research Centre (ACE CRC).

The funding, announced in December, will allow the ACE CRC to continue its valuable work in areas such as climate change and ocean control of carbon dioxide.

The State Opposition stood shoulder to shoulder with the Bacon Government in lobbying for a continuation of funding for the ACE CRC and was part of a tripartite delegation to Canberra in November last year.

Rene Hidding, MHA
State Opposition Leader



ILLEGAL FISHING IN THE SOUTHERN OCEAN

The issue of illegal fishing in the Southern Ocean, on which Australia has been prominent in taking action, is of ongoing concern and interest.

Far from being resolved, the illegal fishing for Patagonian toothfish has recently been making a transition from being the realm of individual operators to the orbit of organised crime. Pacific Andes is the major player and they are now targeting the Kerguelen plateau, part of which involves Australian territory.

Australia and France are about to sign a treaty of co-operation for enforcement of the ban on illegal fishing on the Kerguelen plateau. The terms of this treaty are not known at this stage, but it is understood to be quite innovative.

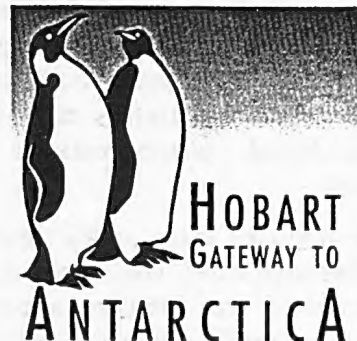
The recent, unsuccessful, attempt to gain CITES listing for the Patagonian toothfish deserves support. CITES listing (this is the international instrument for dealing with trade in endangered species) was a tactic as part of the strategy to get the CCAMLR catch documentation scheme more widely implemented.

Unfortunately a fair degree of paranoia, born apparently of ignorance amongst the CCAMLR countries, meant that the Australian attempt to get CITES to assist with catch documentation was unfairly dealt with. The Russian delegation, which led the charge against seeking CITES involvement, had as advisers in their delegation lawyers from the Pacific Andes.

The problem remains that CCAMLR comprises only 30-odd nations whilst CITES has around 160 nations involved. Nations who are not members of CCAMLR have no compunction to adhere to CCAMLR rules. We obviously need to use non-CCAMLR rules to improve the efficacy of the fight to end illegal fishing, which not only affects the stocks of the Patagonian toothfish but also has a negative impact on Albatross populations through the by-catch on long lines.

China, which is the host nation for Pacific Andes, has most of the fish processors through which the illegal catch is processed, and is the largest market for the illegal catch, and must be brought under the umbrella. The CITES move would be a major step forward, and we should actively support Australia's actions in this regard.

Peg Putt MHA
Leader of the Greens Opposition





ASTRO IGLOO

Members of the University of NSW's Department of Astrophysics and Optics have been recording their activities while setting up their green and gold Igloo Satellite Cabin and equipment near Dome C in Antarctica. Accessible at www.phys.unsw.edu.au/astro/southpole2003/latest.html, the South Pole Summer Diaries 2003 provide a humorous insight into expeditioners' problems with technical equipment and hosting visitors. AASTINO is now operating automatically and all equipment is functioning well. [Thanks to Jon Everett at UNSW for keeping IB up to date on this project.]

L-R: Prof. John Storey (UNSW), Dr Mario Zucchelli (Italian Antarctic Program), Tony Travouillon (UNSW) & Dr Jon Lawrence (UNSW) at the Antarctic Astrophysical Site Testing Observatory (AASTINO)



EXTENDED SEAS

Proposed new international boundaries that will increase Australia's marine territory to 16 million square kilometres, will be submitted to the UN Commission on the Limits of the Continental Shelf in 2004. If the UN Convention on the International Law of the Sea approve these expanded territories, which include areas around Tasmania, Macquarie, Heard and McDonald Islands, there could be new resources and markets for Australia's oil and gas; fisheries; marine-based pharmaceuticals and shipping industries.

Overseeing the proposals is the newly appointed CSIRO Marine Research chief, Tony Haymet, who has already expressed his concern about the pressure of commercial interests in these unexplored areas, which will also become available for new marine research.

CHANGING POLES

Scientists at the Centre for Planetary Science in Denmark report that there are large holes appearing in the Earth's magnetic field. If these increase, they could cause the North and South Poles to swap positions, an event that normally occurs every 500,000 years but has not done so for 750,000 years. The resulting surge in radiation, evident while the magnetic field is weakened, could cause cancers, reduce crops and disorientate migratory birds, fish and other animals.

OCEAN RESEARCH

Exploration and monitoring of areas of the Southern Ocean will be carried out in 2 ways this year. The CSIRO Marine Research Laboratories will begin a 3 year project to place 44 robotic floats to monitor temperatures and salinity from Australia to the edge of the Antarctic sea-ice near the Circumpolar Current. The research ship, 'Marion Dufresne', will carry international scientists associated with an Australian National Oceans Office and French Polar institute project, to scan submarine canyons southwest of Tasmania, northwest of the Murray River delta, then across the Great Australian Bight to Fremantle, W.A.

POLAR SHORTS

- Antarctica's first major wind turbine is now operating at Mawson Station.
- CSIRO in Hobart hosted this year's Partnership for Observation of the Global oceans (POGO) conference.
- Tasmanian Whale Watch hotline is 0427 WHALES or 0427 942 537.
- Plans are underway to carve a 1600 km ice road inland from the Antarctic coast to Scott-Amundsen Base.
- 20% more southern right whales were observed last year, the biggest number seen in the 32 years of annual aerial surveying.
- Seals in Canada can distinguish between calls of seal-hunting killer whales and their fish-eating killer whale cousins. Researchers played tapes of both calls and observed more seals fleeing when the seal-eaters' call was heard.
- The youngest Briton to reach the South Pole on foot is 27-year-old Tom Avery. Accompanied by another Briton, a Canadian and a South African (the first from his country), Tom pitched his tent 20 metres from the Pole on December 29, 2002.
- Automatic Weather Station data for the network in East Antarctica is available at www.antcrc.utas.edu/argos.

TPN CHAIRMAN'S MESSAGE



The next three months will see the 10th Anniversary of the TPN in May, which we are planning to celebrate by holding a Procurement Conference involving the AAD, CSIRO and if possible other countries' representatives. This is a fitting manner in which to recognise the past 10 years which have seen the Network grow and consolidate its role in advancing Tasmania's best interests in the international Antarctic and Southern Ocean procurement and support marketplace. More details will soon be circulated to TPN Members and I encourage strong and wide participation.

One issue, which continues to hamper our progress, is that of shipping fuel availability in Hobart. Greg Johannes and Ben Galbraith of the OAA continue to pursue this with the support and assistance of some of our Shipping Members but it seems there are some challenging issues before us in this matter.

On the other hand, we have received strong support and assistance from the Customs and Quarantine Service in overcoming some past difficulties in respect to export and quarantine issues. This will greatly assist some members in their pursuit of Antarctic related trade.

I note Greg Johannes' work in preparing the TPN Strategic Plan, which will be submitted to Members for adoption at the next meeting on 7/3/03. The Plan encompasses much of the Network's past activities and matches them with some new initiatives for our corporate focus and action together. I commend the Plan to all members and encourage its adoption and vigorous pursuit. In particular, I note the intention to widen our membership and influence base by developing a relationship with TCCI. TPN and TCCI and their members have a lot in common and I believe that a good 'win-win' can be crafted between us all for Tasmania's benefit.

Last week I was delighted to hear Lara Giddings on ABC radio confirming the State Government's commitment to retaining the 2002 level of support to the 2003 Midwinter Festival. The State Government commitment of \$40,000 plus \$5,000 from HCC will ensure that last year's inaugural Festival will become the platform for this year's event. I have no doubt that the OAA and its Officers now have a very heavy workload before them and encourage TPN Members to get involved and assist where they are able.

Another piece of very good news to come to light recently is the announcement by Sir Guy Green of his intention to host a Fourth Governor's Forum on Antarctica, the Sub-Antarctic and the Southern Ocean in August this year. I believe the three previous Forums have been pivotal in fusing the Tasmanian effort in this field into a consolidated and considered thrust which has, despite its many and varied components has been remarkably well coordinated. This is quite an achievement given the wide variation in our respective fields of interest and the positions from which we view things in both the Public and Private sectors. I think the 'glue in the pot' which has held our total Tasmanian effort together has been the common purpose and commitment we all share together at these Governor's Forums and I look forward to more 'gluing' in August!

Bill Lawson
Chairman, TPN

ANTARCTIC RUNWAY ON TRACK

Australian Antarctic Division (AAD) engineers have made substantial progress on a runway being constructed near Casey station. The runway will serve as the hub for Australia's air transport system to and within Antarctica.

Parliamentary Secretary for the Antarctic Dr Sharman Stone said that after the site was proved suitable, runway construction trials had begun.

"Engineers have found that the site, inland from Casey station and adjacent to an area surveyed last year, meets the requirements to support a blue ice runway and is clearly the best in the region for its establishment," said Dr Stone.

The AAD's Air Transport project manager Charlton Clark said that preliminary grading of the surface had been completed, core samples taken to ensure proper structural criteria were met and there had been no evidence of melting surface or subsurface.

"Surveying was used to establish two master benchmarks at the site and to map the runway's surface 100 metres wide by four kilometres long," Mr Clark said.

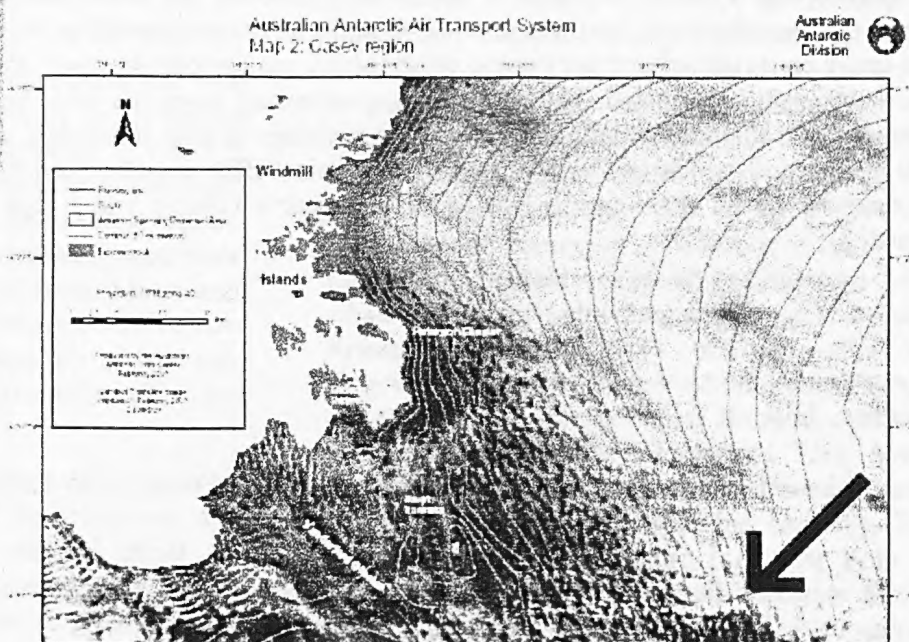
"Engineers have completed a 'proof test' of the region's glacial surface using a Caterpillar D7 tractor of similar weight to a Falcon 900EX, the aircraft proposed to be used on the air link, perched on four wooden blocks.

"George Blaisdell, an expert from the Cold Region Research and Engineering Laboratory in the United States is providing onsite technical assistance for the ice runway construction," Mr Clark said.

"The AAD's team has also worked closely with the Civil Aviation Safety Authority (CASA) to ensure the runway meets strict safety standards and has minimum impact on the environment," he said. A site visit by staff from CASA and Skytraders in March will confirm many aspects of the runway and operating system.



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A FLURRY OF ACTIVITY ON THE HORIZON

As this article goes to print there's a flurry of activity in the Office. The Government has announced a strong funding commitment to the 2003 Mid-Winter Festival and Government House is making plans to host a final Governor's Forum on the Antarctic in August. At the same time, there is a major presence in town from the French polar program and significant activity surrounding implementation of those few, outstanding actions arising under Tasmania's Antarctic, Sub-Antarctic and Southern Ocean Policy Framework.

The Mid-Winter Festival promises, again, to be a showcase for the Antarctic community. The most difficult decisions on the Festival will be what events not to include, as the Office has been inundated with requests to participate off the back of last year's fantastic results. Those requests range from writers' workshops and specially commissioned sculptures to husky races and musical events. The Office will again coordinate the Festival but its success will continue to depend on the fantastic level of support it's enjoyed to date from the local Antarcticaphiles.

An announcement from Government House that His Excellency intends to host a final forum on the Antarctic is also a terrific boon for the State. Such a forum is unique in its potential to bring together key movers and shakers in our Antarctic community, and to ask them to put together their collective minds to identify opportunities and challenges for Hobart as we seek to cement the city's role as the world's pre-eminent gateway.

Reinforcing our gateway role, Tasmania has enjoyed a very large French Antarctic presence of late. The berthing on Macquarie Wharf of the 'Marion Dufresne' has drawn substantial media interest, and the Office has welcomed the opportunity to host meetings with the Director and Head of Polar Logistics at the Institut Polaire Francais. Both are old friends of the local Antarctic community and have reaffirmed France's long-term commitment to supporting its Antarctic operations out of Hobart.

This activity underlines the importance of the key actions arising in Tasmania's Antarctic, Sub-Antarctic and Southern Ocean Policy Framework. The policy is now almost two years old and a recent whole of government meeting revealed that almost all of the associated actions have been completed or are well underway. With the policy actions close to finalisation, the outcomes of events such as the Governor's Forum may well provide the impetus for a fresh round of thinking later in the year on the next set of key actions that the community can adopt to strengthen even further our Antarctic role.

Of course, success in each of these areas depends fundamentally on a collegiate approach between all the institutions in Hobart that collectively constitute our Antarctic community. While the Office will be very busy over the coming months, we will not be successful without your strong, ongoing support.

Greg Johannes
Director

ANTARCTIC CRC ACTIVITIES

The new year has brought many successes for the Antarctic CRC.

Firstly, the CRC's bid for a new research centre, the Antarctic Climate & Ecosystems CRC, or ACE, was successful. ACE will receive \$23.5 million from the Federal Government over its seven year term. Additional contributions will be provided by CRC research partners, overseas participants and the state of Tasmania, taking the centre's total resources to \$184.1 million.

ACE will focus on:

- ◆ Sustainable management of Antarctic marine ecosystem resources , and
- ◆ Atmospheric and oceanic processes of the Southern Ocean and their role in global and regional climate variability

Science program managers at the new CRC will be Dr Steve Rintoul: Climate Variability and Change, Dr Steve Nicol: Antarctic Marine Ecosystems, Dr Tom Trull: Ocean Control of Carbon Dioxide, and Dr John Church: Sea Level Rise. The new centre will also have a strong emphasis on policy (program manager: Dr Marcus Haward), education (education manager: AProf Andrew McMinn) and commercialisation (a full time project manager is to be appointed).

Secondly, the summer field programs have been successful.

Voyage 5 (led by Richard Mulligan on board the Polar Bird) returned on the 20th February, bringing home the summer personnel from Davis Station. Richard Coleman returned with AMERY GPS measurements to add to the ever increasing array of CRC data from the AMERY region.

Voyage 4 (led by Steve Nichol on board the Aurora Australis) embarked on the 3rd January for the AMLR Marine Science and Krill Flux Survey Program. CRC staff (John Church, Mark Rosenberg, Patti Virtue and Clodah Curran) and students (Bronwyn Wake) are contributing to the krill and oceanographic surveys. We look forward to their return in March.

CRC scientists also toasted success (with very nice wine) upon the return of the Marion Dufresne on the 17th February. Dr Will Howard and Dr Leanne Armand were a part of a 25 day research cruise in the Southern Ocean and Antarctica, including a port call at the French Antarctic base Dumont d'Urville. The Marion Dufresne sailed from Fremantle, WA on 23 January under the command of Capt. Francois Robic and his crew. Dr Howard and Dr Armand collected sediment cores, plankton and water samples, as well as carrying out acoustic surveys of sea-floor topography and sub-bottom sedimentary structures.

Expedition outcomes are expected to be the unravelling of the climatic and oceanographic history of the ocean basins of the Antarctic Margin and Southern Oceans in the Adelie Land sector. An area that comprises a crucial segment of the circum-Antarctic sea-ice system, including significant sources of bottom water that circulates from Antarctica throughout the world's ocean basins.

Donna Roberts
Publications & Administrative Officer
Antarctic CRC



One of TPN's newest members, Irina Karmanovskaia, has kindly translated two Russian Antarctic articles for Ice Breaker readers.

NEW ANTARCTIC CHURCH

A Russian Orthodox Church for Bellinghausen station has been built in Altai Republic (Russia).

One of the local companies started construction in the middle of April 2002. At first it was decided to built church from the Altai cedar which is very easy to work with and is very durable, but taking in consideration the extremely cold climate of Antarctica, the first 4 rows of the building has been made from strong local larch.

The church was built without nails and is able to resist the strongest winds of the South Pole. It is 40 m² and more than 20 m high.

Before sending the church on the 1.5-month voyage to Antarctica, all logs will be numbered and the structure itself will be disassembled and delivered to the nearest railway station in Biysk, then to one of the North Sea ports from which the next Antarctic expedition will depart.

Father George, polar explorer with 20 years Antarctic experience, will be the priest of this church.

NEW RUSSIAN NAMES IN ANTARCTICA

The expedition "Russia-Antarctica-2003" was held from 3rd Dec. 2002 till 10th Feb. 2003 and consisted of 13 members from different cities of Russia such as Moscow, Ekaterinburg, Krasnoyarsk and Novosibirsk.

The scientific vessel "Academic Fedorov" left St.Petersburg on 5th Nov. 2002, carrying two 6 wheeled cross-country pneumatic vehicles with super-low pressure "Exstrans-102". On 3rd Dec. 2002, several members from the expedition under the leadership of Georgi Gattagov flew to Cape Town and boarded the "Academic Fedorov" on 6th Dec. 2002. On 28th Dec.2002 the ship arrived to Novolazarevskaya station.

The base camp for the expedition was soon organised at some distance from the station (71.36,4'S, 12.34,5'E) at an altitude of 1600 m. The distance from the base camp to Novolazarevskaya station. was covered by the cross-country pneumatic vehicles.

On 25th Jan. 2003 "IL-76" arrived in Antarctica carrying 73 people including the main group of the expedition. Only due to high proficiency of the Russian pilot Ruben was it possible to land the plane in severe blizzard conditions at Novolazarevskaya station on that day.

On 30th Jan. 2003 Evgeni Vinogradski, Valeri Pershin, Alexander Foigt climbed the nameless peak (71.36,375'S, 12.38,12'E) and named it after Marshal **Georgi Zhukov**. On 1st Feb. 2003 Georgi Gattagov, Yuri Baikovski, Evgeni Vinogradski, Valeri Pershin spend 12 hours climbing a peak of 2355 m (71.27,996'S, 12.28,444'E) and named it after the **Saints Boris and Gleb**. With them, they brought a wooden Orthodox cross with the following words inscribed "... The Holy Spirit will come upon you, and you will receive strength from him, you are to be my witnesses in Jerusalem and... to the ends of the earth". (The Acts of the Apostles, 1.8). Strong wind and cold weather made their route very difficult.

On 3rd Feb. 2003, Evgeni Vinogradski, Valeri Pershin, Alexander Foigt spend 12 hours climbing a peak of 2239 m (71.35,688'S, 12.39,595'E), and named it **Vladimir**. Meanwhile there were problems with one of the vehicles, which, being impossible to repair, required a new engine to be ordered in Cape Town.

On 5th Feb. 2003 five members of the expedition climbed a peak on the height 2060 m (71.29,65'S, 12.28,00'E) which was named after the famous Byryat hero **Geser**. On 9th Feb. 2003 two pneumatic vehicles, which were tested in extreme conditions by the members of the expedition "Russia-Antarctica-2003", were transferred to the 48th Antarctic Russian Expedition. On the 10th Feb. 2003 all members flew from Novolazarevskaya to Cape Town on board an "IL-76" and several days after they returned to Russia.

Various sporting and scientific tasks were completed during the expedition:

1. Scaling and naming several unnamed peaks.
2. Testing new models of oxygen equipment for high-altitude climbing.
3. Conducting psychological, medical and biological research in the extreme conditions of the Polar latitudes.
4. Testing newly developed cross-country vehicles.

MACQUARIE MEMORIES NO:1

Introducing Peter Ford, PhD, former ANARE scientist on Macquarie Island in the early 1950s. Peter, who lives in Hobart, has kindly agreed to provide some stories and photos about his Antarctic activities for Ice Breaker.

A SWELL TIME OFFLOADING

I spent two years at Macquarie Island, once in 1951 and then again in 1955. It is about 1600 km SSE of Tasmania and is quite a small island, a ridge of land 20 miles long, perhaps a mile wide and a few hundred feet high. My role on the island was that of cosmic ray physicist, looking after a telescope made of Geiger counters which detected the radiation of charged particles which rain down from the sky constantly. We were trying to determine from where in the sky these came. Macquarie Island was well suited for this because it was far enough south for the effects of the earth's magnetic field on these charged particles to be minimal.

Materials for the expeditions were carried to the island by ship, usually by whatever ship ANARE could muster at the time and not specially built for the purpose. These ships often encountered quite rough weather and suffered damage on many occasions. On one of my trips south, we were carrying a motor launch as deck cargo. This was to be used for marine research by the biologists. It was destroyed by waves before it reached the island.

I remember being quartered in the bow of the ship in amongst the chain lockers and the paint store. The noise, smell and motion as the ship went up and slid down the other side of the waves was not conducive to good rest and health. I was sea sick for a day before I gained my sea legs.

The quarters were unheated, the bed cover was an eiderdown quilt. This proved to be too good an insulator, we cooked under it and would wake up sweating. We would have to fold it back some distance to expose a part of our chest, which would be cooled to the ambient temperature, about 7 degrees. Our chest would freeze but the average body temperature was then about right. The figure eight motion caused by the waves made staying in the bunk rather difficult. A couple of us left these quarters and slept in the ship's lounge on seats which went round the walls of the room. By lying "L" shaped in the corner, body along one wall, legs along the other, we could get the stability we needed to not fall off the lounges while sleeping as the ship moved under us. Also, being in the centre of the ship, the motion was not quite so distressing.

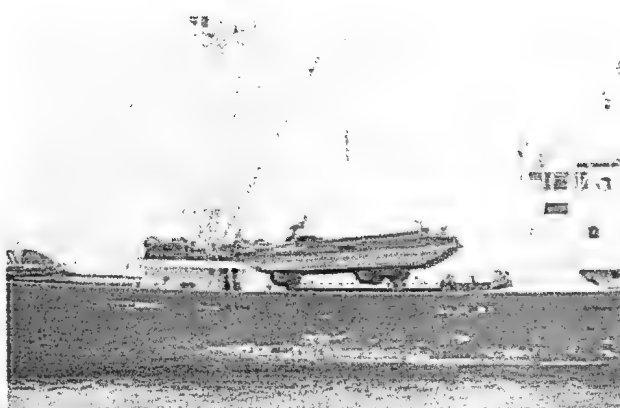
Our first view of the island showed what appeared to be two parts, a small hill to the north and the main part a half mile or so to the south. As we neared, there appeared a low lying, mostly sand, isthmus which connected the two parts. It was about 20 feet above sea level. One wondered why it did not get washed away during storms. It turned out that the camp was situated on this isthmus! The ship anchored well offshore because of the many rocky reefs surrounding the island. Material was unloaded using DUKW amphibious landing craft provided and manned by the Army. These craft looked like large bath tubs with wheels. They would moor alongside the ship and provisions would be loaded into the craft by the sling load. Since load was about the same size as the DUKW, persons on the craft would have to be quite agile in avoiding having the load dropped on them. The swells were large, so the craft would rise and fall several feet, making the dropping of the load difficult. On the one hand, the load would need to be quickly lowered so that the craft was under the load at the time, but on the other hand, many of the supplies were delicate and did not take kindly to impact. We did lose a few bags of cement, some of which were also dunked in the water when the craft moved at the last moment.

A few of us were needed on the craft to handle the load and position it in the hold. Watching the load descend on top of you was a bit nerve-racking. Often, just as the load hit the bottom of the craft, the swell caused it to lift out and then descend rapidly before we could unhook it. The chance of injury was very real, particularly when the drums of diesel oil for the generators were being off-loaded. On a couple of occasions, men finished up in the water to avoid the swinging drums. This was a serious occurrence because the survival time in this very cold water was on the order of minutes. Rescue operations for the men had to be undertaken immediately. Fortunately, no-one was lost during these times, although a few wrist watches and cameras were salt water damaged. More of that later.

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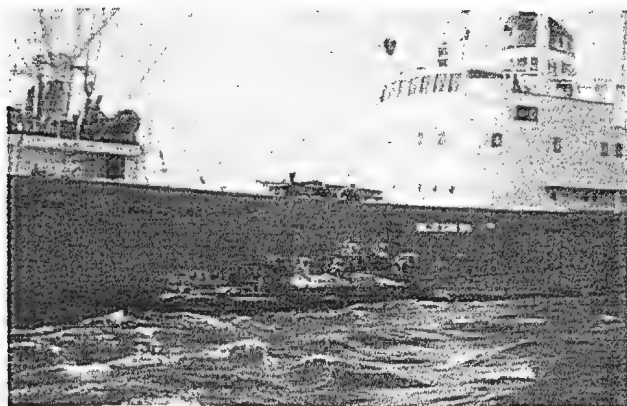


Kista Dan anchored near the isthmus at Macquarie Is.

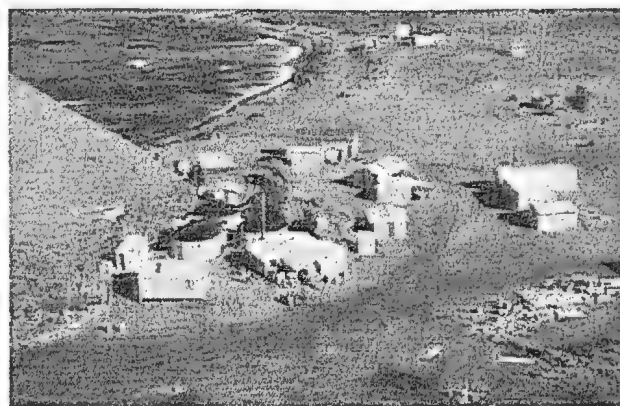


Offloading a DUKW from *Kista Dan*

1950'S PHOTOS OF MACQUARIE ISLAND



Kista Dan crew coming ashore.



1950's view of Macquarie Island Station from Wireless Hill

BY PETER FORD



Macquarie Is. Huts



View overlooking Macquarie Island Station



SURVEYOR'S VIEWS

Robert Harman ('Ready for Antarctica', Issue 21) kindly sent e-mails and photos to Ice Breaker while he carried out surveying work around Davis Base this summer. Having survived the voyage to Davis without being seasick, Rob explored and surveyed the Vestfold Hills area; set up GPS stations on the 3 islands of the Rauer Group and walked to the lowest point of Antarctica, Deep Lake. He also visited Law Base, Progress 1 and 2 (Russian) and Zhong Shan, the Chinese base, before returning to Hobart on in February.

Robert Harman in Antarctica {Photo: Robert Harman}



SHIP'S FAREWELL

Antarctic resupply and research vessel, 'Polar Bird', has recently been sold to an undisclosed buyer, and will end its ANARE contract this March after nearly 20 years of service. The replacement vessel is likely to be capable of carrying heavier loads but no further details are available as yet.

HUMANITIES GRANTS

Mr Jak Denny, a Rosny College teacher, received a Federal Government Antarctic Humanities Program Award this year and sailed aboard the Polar Bird to Antarctica to interview scientists and videotape projects for inclusion in the AAD's Classroom Antarctica website. Another recipient of a Humanities Award was Jenni Mitchell, a Victorian artist who set up a small studio on Polar Bird's bridge on its voyage south in December last year. Historian Tom Griffiths (ACT) sailed on the same voyage to gather information for his book on the international history of Antarctica.

LAKE VIDA AND MARS

US researchers have discovered an unusual and extreme aquatic ecosystem in Lake Vida, one of the largest lakes in the McMurdo Dry Valleys in Antarctica. Seven times saltier than normal seawater, this 'liquid lake' is locked beneath 19 metres of lake ice. Ice core samples have revealed frozen bacteria and algae, probably 2,800 years old, that came back to life after gradual melting. NASA is interested in the Lake Vida eco-system research because it may act as a model for ice probes on mars, which potentially has ice-sealed lakes like Vida. As well, analysis of the brine in Lake Vida will provide information on how long eco-systems can survive on increasingly cold environments such as Mars'.

MORE SHIPS' NEWS

In December 2002, the 'Shonan Maru' and 'Shonan Maru No.2' departed Hobart for a 76 day circumpolar cruise for International Whaling Commission Southern Ocean Whale and Eco-system Research. Major objectives this season are estimating the minke whale population and observing and analysing differences between 'true' and 'pygmy' blue whales.

The Sea Shepherd Foundation's 'Farley Mowat' visited Hobart in December as well, before sailing to the Southern Ocean to intercept the Japanese whaling fleet. However, they were unsuccessful in their search for the fleet this season. Their log is accessible on www.seashepherd.org.

A rescue voyage was carried out in the Southern Ocean in January this year. TPN member Don McIntyre, who owns the expedition ship 'Sir Hubert Wilkins', assembled a volunteer crew and sailed south to rescue round-the-world yachtsman Jean Luc Van Den Heede and his yacht 'Adrien', which had been dismasted. Later this year, Don and his wife Margie will be competing in Targa Tasmania – a faster and warmer adventure than their previous Antarctic activities!

ANTARCTIC RECYCLING

The Australian Antarctic Division is recycling shipping containers and converting them into temporary accommodation units in Antarctica. More details and photos are available on the AAD's website: www.aad.gov.au.



Above: Robert Harman in Deep Lake, Antarctica
Below: Emperor Penguins, Antarctica [Photos: Robert Harman]



JÖRG SCHMEISSER: BREAKING THE ICE

INTRODUCTION

This project involves the development, mounting and touring of *Breaking the Ice*, an exhibition of recent work by Jörg Schmeisser, based on his experiences in Antarctica. It is being developed by the Tasmanian Museum and Art Gallery, Hobart, in close cooperation with the artist.

THE ARTIST

Jörg Schmeisser is one of Australia's leading printmakers. Following studies in Germany and Japan, he taught for some years at the Hamburg Fine Art Academy before moving to Australia in 1978 to head the Printmaking Workshop at the Canberra School of Art. He has exhibited regularly since 1970 at Print Biennials and Triennials (in Bradford, Krakow, Taipei, Frederikstad and Kochi), and in more than 120 solo exhibitions both in Australia and overseas (including the Museum of Art & Archaeology, Columbia, Missouri, the National Gallery, Bangkok, the Museum für Kunst und Gewerbe, Hamburg and the Museum of Modern Art, Kobe). Major survey exhibitions of his work were mounted at the Drill Hall Gallery, Canberra in 1995 and the Canberra Museum & Art Gallery in 2000. A detailed current résumé is attached.

Much of the artist's work to date has been informed by the cultural heritage of the places where he has worked and travelled. The works from the voyage to Antarctica mark a departure into distinctly new territory, a place of absent culture and an ever-present and overwhelming nature.

THE GALLERY

The Tasmanian Museum and Art Gallery is the State institution for the collection, display and interpretation of the natural and cultural worlds. As a public art gallery it maintains a collection of some 7,000 (mostly Australian) works, and an extensive program of temporary and touring exhibitions. As one of very few continuing joint art/history/science museums in Australia, it is experienced in thematic, interdisciplinary exhibition making; recent examples include *Sea* (1997) and *Tasmanian Tiger: the mystery of the thylacine* (1998), as well as occasional projects in the Art Department's ongoing program of artist's interventions.

As Australia's southernmost museum, it has a particular interest in Antarctica. In addition to the major touring science exhibition *Antarctica: Secrets of the Frozen World* (1994), it has also shown Antarctic works in *Antarctic Journey: three artists in Antarctica* (John Caldwell, Bea Maddock, Jan Senbergs) (1988) and in solo shows by David Stephenson (2001) and Charles Page (1994). Its permanent collection includes polar subjects by these artists and by George Davis, Sydney Nolan, Christian Clare Robertson, Sally Robinson and Stephen Walker.

THE EXHIBITION

Breaking the Ice will be curated by TMAG Senior Curator of Art David Hansen. In its initial presentation it will comprise some 60 recent works (including field journals, watercolours and mixed media works on paper, an artist's book and etchings – work on a video is in progress), developed from the artist's 1998 journey south under the auspices of the Australian Antarctic Division. A documentary video is also in preparation. For touring, the exhibition will be presented in a more manageable size: some 40 works.

The show combines description/record and innovative interpretation. The title refers both to the physical journey through the polar ice and to the opening up of new perceptual and conceptual territory for the artist. He will present works with a new focus, exploring ways and methods that have been unfamiliar to him so far.

The show will have its first presentation at the TMAG in April 2003, opening as part of the "Ten Days on the Island" arts festival, which in 2003 will have the Antarctic as a particular sub-theme.

Continued next page >

THE CATALOGUE

The exhibition will be documented in a 32-page colour catalogue. This publication will include:

- ☐ a complete list of works
- ☐ reproductions of all works in the touring exhibition
- ☐ a foreword by Dr Tony Press, Director of the Australian Antarctic Division
- ☐ a contextual essay on Australian artists working in the Antarctic by University of Tasmania scholar Lynne Andrews
- ☐ a descriptive/analytical/interpretative essay by exhibition curator David Hansen
- ☐ an essay on the artist's Antarctic etchings by Peter Haynes, Director, Canberra Museum and Art Gallery
- ☐ artist's statement and biographical details.

THE TOUR

The exhibition will tour internationally over a 12-month period, travelling to five venues in the United States, Japan and Europe before concluding at the Canberra Museum and Art Gallery in association with the 2004 Australian Print Symposium. It is intended that at each venue it will be accompanied by the artist or the curator, who will supervise installation, assist with promotion and present floor talks or lectures.

Economy and ease of installation are primary considerations. The mass and volume of the exhibition package will be minimized; it is anticipated that the show will be contained within two small crates. Larger works will be presented unframed; using a specially-designed matting system, smaller works will be mounted and framed as appropriate.

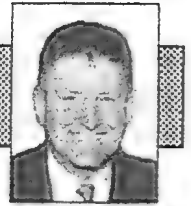
Negotiations with venues are continuing, with the draft itinerary as follows (* denotes confirmed venue; □ denotes negotiations current).

2003	17 March – 5 May	TMAG/"Ten Days ..." festival, Hobart	*
	18 May - early July	Australian Embassy, Washington, D.C.	*
	August	Don Soker Modern Art (in association with Australian Consulate), San Francisco	?
	November	Aoki Gallery (and additional venue to be confirmed), Tokyo	*
	December -		
2004	February	Scott Polar Research Institute, Cambridge, U.K.	°
	March	Deutsche Forschungsgemeinschaft, Bonn	*
	April/May	Canberra Museum & Art Gallery	*

THE AUDIENCE

The exhibition and catalogue are designed to bring Schmeisser and his work and the theme of Antarctica before a wide range of art and science audiences in Australia and overseas. Cities and institutions have been selected on the basis of existing familiarity with the artist, of interest in etching and related media and/or association with Antarctic and polar exploration. The exhibition tour will also provide an opportunity to promote the work of the Tasmanian Museum and Art Gallery and of the Australian Antarctic Division.

David Hansen
Senior Curator of Art
Tasmanian Museum and Art Gallery
24 January 2003



TASMANIA'S SMALLEST EXPLORERS RETURN HOME

James is not your average penguin — he is one of a dozen cute and cuddly toy penguins and huskies from Antarctic Adventure which recently travelled to the frozen continent aboard *Aurora Australis*.

James spent his Christmas vacation visiting his long lost “cousins” who live near the Australian Antarctic Station, Davis.

But unlike the “locals”, *James* passed most of his time indoors, making friends with station staff, and even sharing a hearty Christmas lunch with them!

Approximately half of the holidaying animals spent six weeks enjoying the sites and sounds of their relatives’ homeland, while the remaining animals enjoyed the trip so much that they decided to stay longer, giving them an opportunity to visit some of the other stations.

This unusual journey is part of tourism icon Antarctic Adventure’s goal to provide Centre visitors with an educational and fun slice of life on the frozen continent, said Centre General Manager Rodney Cameron-Tucker.

“Each of the penguins is named after an Antarctic explorer and each husky is named after one of the many hard working huskies that have made life easier for Antarctic researchers and explorers,” he said.

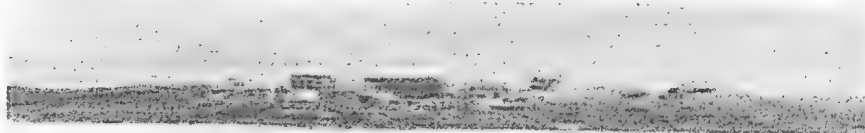
“In addition, each animal has its own personalised passport with details of its trip, as well as a photo album — for example, we have photos of one penguin sitting amongst a school of real penguins, and another photo showing it enjoying Christmas lunch at Davis.

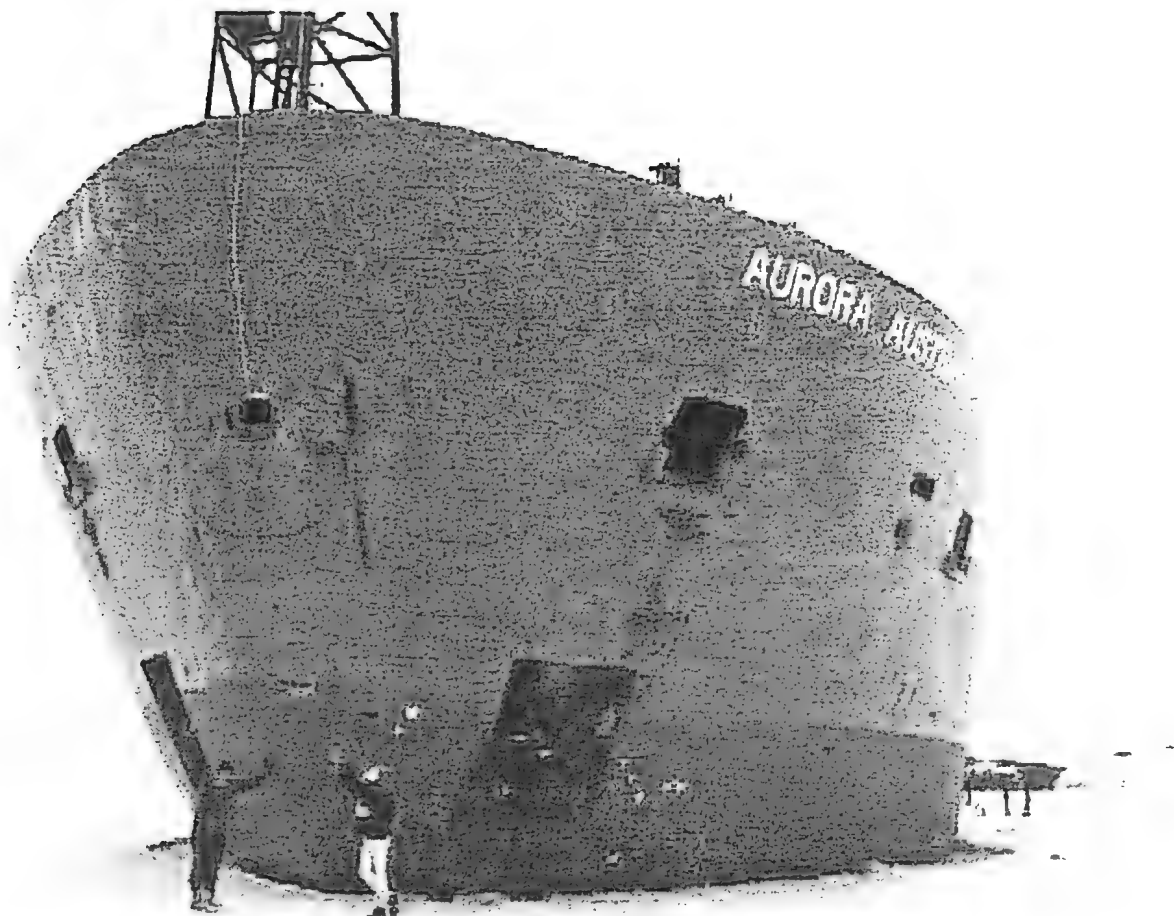
“It’s something fun and a little different, which is what we always aim to provide at Antarctic Adventure.”

All of these well-travelled animals (complete with passport and album) are on display in Antarctic Adventure and are for sale.

Mr Cameron-Tucker said the animals have attracted plenty of interest from local, interstate and overseas visitors since their return.

“There is something about Antarctic animals that really appeals to a broad cross section of people, and the fact that these animals have actually been to Antarctic and can prove it adds to the attraction,” he said.





Above: *Aurora Australis* near Davis Base

Below: Robert Harman at Brookes Base [Photos: Robert Harman]





TPN CONGRATULATES MEMBERS ON WINNING MIDWINTER FESTIVAL AWARD

The Tasmanian Polar Network has welcomed the announcement that the Antarctic Tasmania Midwinter Festival has received Hobart City Council's 2003 Community Event of The Year Award.

TPN Chairman, Bill Lawson said this unexpected recognition was great news for the many organisations and their volunteer staff who had contributed to its wonderful success.

"What really started as just a simple way to celebrate the Winter Solstice has been thrust onto centre stage to become a major community event. The original idea was to foster knowledge and pride in Tasmania's Antarctic connections amongst the local community. This was certainly achieved judging by the large number of people, 27,000 who turned out in generally cold, windy and rainy conditions to participate during the 10 day event.

"The Midwinter Festival was a huge success due mainly to the remarkable cooperation of Tasmania's Antarctic community who overwhelmingly endorsed its ideals," said Mr Lawson.

"As Chairman, I am proud of what has been achieved by the willingness of TPN members who gave their whole-hearted support in hosting and supporting the large number of events organised over the Winter Solstice, and the State Government's major financial contribution.

"We now have a world first with the Antarctic Tasmania Midwinter Festival the first event of its kind anywhere in the world to showcase and celebrate the uniqueness of this vast pristine environment.

"The Festival highlighted many aspects of Tasmania's Antarctic tradition and heritage, from historical and artistic to the modern and scientific areas, including the inaugural Phillip Law Lecture. "I was most impressed with the widespread media coverage of many events together with the large number of school children involved with the Antarctic Discovery Days, the Snow Petrels, Classroom Antarctica and Antarctic Careers Market."

Plans are already well underway for this year's Midwinter Festival.



L-R: Greg Johannes (OAA), Ben Galbraith (OAA) & Bill Bleathman (TMAG) with the Award. [Photo: Trevor Sutton]

MACQUARIE IS. MEMORABILIA NEEDED

The Tasmanian Museum and Art Gallery (TMAG) is planning a display of historical items from Macquarie Island for this year's Midwinter Festival. Anyone with items available for loan to TMAG during June should contact Robbie Pointer on (03) 6211 4153.

ANTARCTIC CRC

The ACE CRC's Newsletter is now edited by Dr Donna Roberts and available under 'News and Information' at <http://www.antcrc.utas.edu.au/news/news.html>.

NEW UNIVERSITY STUDIES

One of the units offered this year by the Institute of Antarctic and Southern Ocean Studies (IASOS) is 'an in depth study of the Antarctic as a niche tourist destination'. Antarctic Tourism will be offered as distance learning via the World Wide Web in Semester 2, 2003, according to the University of Tasmania's newspaper advertisement in December 2002.

ANTI-PIRATE ACTION

A ship used by one of the Patagonian Toothfish poachers is to be sunk as a dive wreck off Bunbury, W.A. The 'Lena' is to be stripped and sunk instead of being sold, as there were concerns that it would have been purchased for further illegal fishing. However, another ship seized by Australian authorities for the same offence has been released by the International Tribunal for the Law of the Sea, because it disagreed with Australia's handling of the crew and ship.

MACQUARIE MEMORIES NO. 2:

Introducing John Phillips, former ANARE scientist, who spent time on Macquarie Island in the 1960s.

GETTING IT ALL OFF AT GADGETS BEACH

If you are looking for an article on nude bathing then stop reading right now, because Gadgets Beach is on Macquarie Island and the only nude bathers there are the elephant seals. In fact this is a story about launching big plastic balloons from the beach.

During the 1960s I spent three summers on Macquarie Island in the pursuit of auroral X-rays. What are they? Well, bear in mind that an aurora is rather like a television tube on a gigantic scale. In your TV set, electrons are released at the back end of the tube and are accelerated towards the screen. They smash into the layer of phosphors painted onto the inside surface of the glass screen. This makes the phosphors glow and the screen lights up. An aurora occurs when the Earth's magnetic field gets disturbed and it dumps untold billions of high-speed electrons into the top of the atmosphere, making it glow. The process isn't as efficient as in a TV but it occurs over a vast area and the programs are a lot better.

Macquarie Island is situated very close to the region where most auroras occur and would make an ideal auroral observatory site except for one drawback – the weather. It's a common and frustrating experience for expeditioners to emerge from the Saturday night party to see the clouds vaguely glowing, suggesting that the sky above them is pretty well on fire. Quite often this is because an aurora is occurring and is not a by-product of the party at all. Now and then the weather gods get it wrong and the clouds part at the right time to reveal a heart-stopping display of arcs and bands and curtains of red and green.

Those electrons that smash into the top of the atmosphere produce X-rays as well as visible light. Unfortunately air absorbs X-rays and none of the auroral X-rays make it to ground level. The only way to detect and measure them is to take the detector to where the X-rays are – hence the balloons.

Our equipment was fairly simple, an X-ray detector, a few circuit boards, a battery pack and a radio transmitter, for sending the data back. This was all contained inside a Styrofoam box about the size of an Esky. In fact it was like an inside-out Esky; the idea was to keep the heat in. Where these detectors were going, the air temperature was about minus 55 degrees Celsius. The instrument package weighed about 5 kg, not much at all, but we wanted to get it up to about 30,000 metres and to float there. This required a sizeable balloon; the ones we mostly used had volumes of 6000 or 8000 cubic metres.

Why use plastic balloons? Because it's tricky to get rubber balloons to float at altitude. When the Met Bureau launches a rubber balloon it begins to rise because the gas inside, hydrogen or helium, is much less dense than the air outside. Archimedes' Principle is on the job and there is a net upwards force on the balloon. As the balloon rises upwards the outside air pressure gets less, allowing the gas inside the balloon to expand. This stretches the rubber. During the ascent the balloon gets bigger and bigger and the rubber gets thinner and thinner. Eventually the rubber gets so thin that the balloon goes Bang! (well, phut or pop anyway), and that's the end of the flight. It is possible to get rubber balloons to float using special exhaust valves but it's tricky, as I said. A plastic balloon is more reliable.

Auroral X-ray ballooning is a bit like big game fishing; there's a lot of luck involved. To observe the X-rays it's necessary to have an aurora going on but it's no use waiting until one starts before launching a balloon. It takes the balloon about two hours to reach altitude, by which time the aurora will be over. During the day of a likely launch I would spend a lot of time nervously looking at the magnetometer trace and gleaning what news I could from the radio about solar and magnetic activity. Had I been able to slaughter an elephant seal and cast its entrails I would have done that too, but the biologists might have noticed.

Once the decision to launch was made I had to calculate how much hydrogen we needed. (Being poverty-stricken Oz scientists we couldn't afford helium, which is much safer.) This involved weighing the instrument package and looking up the weight of the balloon on its carton. Even though the balloon was

Continued next page >



made of very thin polythene, about as thick as the stuff your dry-cleaning comes home inside, it still weighed about six times as much as the instrument package. Then how many cubic metres of hydrogen would produce an upthrust about 15% greater than the total weight heading skywards? I used some Matric physics to work this out and it was always a source of amazement and relief when it worked.

Why 15% extra upthrust? Well, if there was no extra upthrust the balloon would just float there at ground level and we'd all look stupid. Much less than 10% and it would take hours to reach floating altitude. More than about 20% and it would thunder up through the atmosphere, overshoot floating altitude and either burst or vent off extra gas and immediately start coming down again.

We would borrow the station tractor and trailer, and load all our gear on board. At the very last minute we would switch on the radio transmitter and seal up the instrument package, to get the maximum possible life from the battery pack. Then we would head for the beach at the base of Gadgets Gully. It is about the only place on Macquarie Island that is practicable for launching large plastic balloons, being sheltered (somewhat) from the prevailing westerly winds. Beach is something of a misnomer, however. It consists of boulders, pebbles, gravel and black gritty sand. No wonder there are no nude bathers. On arrival the first job was to lay down a long black plastic tarpaulin, weigh it down along the edge with pebbles (plenty of those to be had) and then sweep off the sand that had already started to accumulate on it, before laying out the balloon.

Before doing this we had to decide whether the wind was blowing north-south along the beach or south-north. It was never not blowing. The point of this was to have the top end of the balloon upwind of everything else. Before it is inflated a plastic balloon is just a huge, long, collapsed plastic bag. Ours were from twenty to thirty metres long in this state, hence the long tarpaulin. At the bottom end we attached the instrument package and the radio aerial that would hang underneath it. There were no radar reflectors, flashing warning lights, radio-controlled squibs to bring the whole thing down on demand – no safety devices at all. This was the 1960s; there was virtually no air traffic to worry about and this balloon was going to disappear forever after a few hours at altitude.

The volume of hydrogen necessary for launching the balloon was only a small fraction of its total capacity. In fact at launch time, the hydrogen inside the balloon occupied about the same volume as a double-decker bus; the rest of the plastic bag was still collapsed. Consequently the balloon's filling tube, just a long tube of the same plastic as the rest of the balloon, was built into the balloon very near to its top end. The far end of the filling tube was connected via a manifold and hoses to our hydrogen cylinders. Controlling the flow into the balloon was an important job, and usually one of the Met. Men became our volunteer inflation captain. Too fast and the filling tube might burst. Too slow and the filling operation might take tens of minutes

Continued next page >

instead of about fifteen. This meant that the half-filled balloon would be exposed to the risk of a sudden gust of wind. Considering that the sail area offered by the semi-inflated top of the balloon was about the same as the spinnaker of a fair-sized yacht, this was an anxious time.

Just underneath the growing bubble at the top the balloon manufacturer had thoughtfully tied the balloon material into a loop and wrapped a cotton tea towel around it. This arrangement was called a "Hutch-Clutch" – I have no idea why – and enabled two people to grasp it and act as living anchors. An important qualification for this job was considerable bulk and a willingness to put up with a lot of discomfort and danger. These blokes were sitting underneath many cubic metres of hydrogen separated from the atmosphere by about half a mm of polythene. Not surprisingly the filling manifold was very carefully earthed. In fact the main danger was the risk of fire, not an explosion. The gas inside the balloon was pure hydrogen, not an explosion mixture. Had it ignited, the main danger would have been from falling blobs of molten plastic, which can inflict horrific burns. Our basic safety instruction was "If the balloon catches on fire, keep your head down and run like hell".

Eventually the inflation captain would yell out "That's it", turn off the gas taps and tape up the end of the inflation tube. The Hutch-Clutch anchormen would untie the loop in the balloon fabric and discard the tea towel. (We used them on our kitchen for years afterwards.) Meanwhile, at the far end of the balloon I would have picked up the instrument package and about four metres behind me another volunteer picked up the aerial, joined to the package by a length of co-axial cable. Then I would yell "Let 'er go!".

Ideally this would happen at a moment when the wind was wafting gently from the top end of the balloon towards the bottom. In that case the gas-filled bubble would rise rapidly, peeling the uninflated length of the balloon off the tarpaulin as it drifted towards me. At the moment the bubble was directly overhead, the rest of the balloon would be hanging straight down below it. The package and the aerial would be plucked out of our hands and that would be that. This never happened of course. The wind had probably changed direction during inflation and the bubble could be drifting in any direction. But it was vitally important that the balloon be more or less vertical at the moment the package was released. Otherwise it would act as the bob on the end of a very long pendulum, and where does the bob of a pendulum head if you pull it to one side and then let go? It heads downwards. Even though the whole arrangement was rising, it wasn't ascending as fast as the package would head downwards if things were badly out of vertical. To see months of work disintegrate on impact with a clump of tussock grass is very distressing.

Consequently it was vital to guess where the bottom of the balloon was going to be at the crucial moment and to head in that direction. The aerial man had to follow me like a shadow because if the coaxial cable were stretched the aerial would be ripped out of the package and all would be lost. Those few seconds of dancing around on Gadgets Beach in a pair of ANARE's famous Cold-Wet boots, focussing on the bottom on the balloon and trusting that my feet would miss the boulders, were some of the most intense and exciting of my life. We had a few seconds of respite from anxiety, once the balloon with its package swaying underneath was safely away. That lasted until the top of the balloon reached the level of the Macquarie Island plateau, where the shelter from the westerly wind ended. Immediately the bubble at the top started heading east while the rest of the balloon was still heading upwards. It is extraordinary to see a balloon with a right-angle bend in it. The passage of the wind over the plateau caused a downdraft and for some time the balloon was blown downwards faster than it was rising through the air. This was dangerous because if the package touched the waves it would probably be smashed and, anyway, the balloon would never drag it free again. More than once the person back in the lab., monitoring the radio signal, heard a series of bursts of static as the aerial skipped across the wave crests, before the balloon finally began to climb out of trouble.

We loaded our gear back onto the trailer and returned to the lab. for a cup of coffee with rum in it and began the two-hour wait as the balloon climbed through the atmosphere. As it did so the hydrogen steadily expanded and gradually turned the collapsed plastic bag into a huge, plump, full one. When the hydrogen eventually reached the bottom that excess 15% bled out through an escape valve – just another long plastic tube that collapsed once the flow stopped – and the balloon was at its floating altitude. Depending on the speed of the upper atmosphere winds, we then had anywhere from two to about twelve hours to discover whether or not our auroral predictions were correct, before the balloon drifted over the radio horizon and was lost forever.

**BOOKS:**

'THE HEART OF THE WORLD – ANTARCTICA' by Coral Tulloch. Published by ABC Books. Price: \$26.95. [A limited number of copies signed by the author are also available at Antarctic Adventure, Hobart.]

An illustrated book for children aged 9 and over. Includes information on Antarctica's history, science, birds and animals as well as human impact on the environment.

'THE SHACKLETON VOYAGES' by Roland Huntford. Published by Weidenfeld & Nicholson. Price: \$65.

A pictorial anthology of Shackleton's life from his early years to his final voyage on the 'Quest'.

'ANTARCTICA: THE BLUE CONTINENT' by David McGonigal and Lynn Woodworth. Published by Five Mile Press. Price: \$39.95.

The second book by this husband and wife team who have travelled to Antarctica about 100 times.

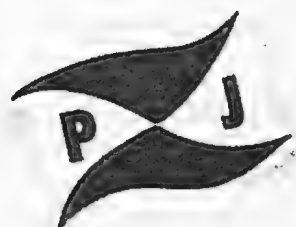
EXHIBITION:

'THE VOYAGES OF DUMONT D'URVILLE 1826-1840'. Museum of Sydney, NSW.

Shows paintings and sketches of D'Urville's voyages to Antarctica, including a painting by Louis Le Breton of 'Astrolabe' bound in ice during D'Urville's first attempt to reach the South Pole.

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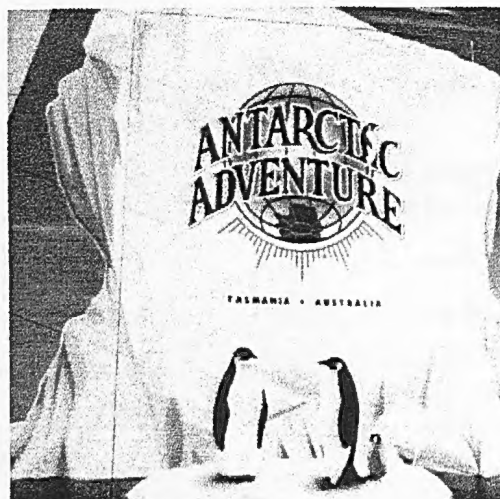
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POLAR CALENDAR



7	March	2003	Tasmanian Polar Network meeting. 11.00 am Hadley's Hotel. Hobart, Tas. Contact cruckstuhl@oaa.tas.gov.au .
21	March	2003	Mawson's Hut Seminar. Environment Australia, Canberra, ACT.
23	March	2003	World Meteorological Day.
24	March	2003	'The Nature of Islands' exhibition of botanical artists' works including flora from Macquarie Island. Hobart, Tas.
28	March	2003-	'Breaking the Ice' art exhibition by Jörg Schmeisser. Hobart, Tas. [See Pages 16-17 for further information]
18	May	2003	
29	March	2003	'Home of the Blizzard' vocal performance based on movie of Hurley's Antarctic images, by Antigone Foster. Hobart, Tas.
30	March	2003	Tasmanian Symphony Orchestra's Antarctic Symphony. For further details see '10 Days on an Island' programme. Hobart, Tas.
1-4	April	2003	2 nd Informal Meeting re establishment of the Antarctic Treaty Secretariat. Buenos Aires, Argentina.
7-8	April	2003	Bioprospecting in Antarctica Workshop. Christchurch, NZ.
27	April	2003	Close of exhibition of The Voyages of Dumont D'Urville 1826-1840. Museum of Sydney, NSW.
5-8	May	2003	IAATO meeting. Seattle, USA. Contact: iaato@iaato.org .
?	May	2003	TPN Procurement Commercialisation Workshop. Hobart Tas.
25-30	May	2003	ISOPE-2003, 13 th International Offshore and Polar Engineering Conference Honolulu, Hawaii. Contact meetings@isope.org .
29	May	2003	10 th Anniversary of the first meeting of parties interested in forming a group which later became the Tasmanian Polar Network. Hobart, Tas.
2-6	June	2003	International Symposium on Snow and Avalanches. Davos, Switzerland. Contact: www.spri.com.ac.uk/igs/home.htm .
5	June	2003	World Environment Day.
9-20	June	2003	Antarctic Treaty Consultative Meeting XXVI. Madrid, Spain.
14-22	June	2003	Antarctic Tasmania Midwinter Festival activities. Hobart, Tas.
8-11	July	2003	COMNAP XV, Brest, France. Contact: jsayers@comnap.aq .
13-26	July	2003	International Astronomical Union General Assembly. Sydney, NSW.
21-25	July	2003	8 th International Conference on Permafrost. Zürich, Switzerland. Contact: haeberli@gis.geogr.unizh.ch .
31	July	2003	Public Launch of the ACE CRC. Hobart, Tas.
1	August	2003	Fourth Governor's Forum on Antarctica. Hobart, Tas. (to be confirmed)
25-29	August	2003	7 th International Symposium on Antarctic Glaciology (ISAG-7). Milan, Italy. Contact: isag7@unimib.it .
18-25	September	2003	Conference on the future of South Georgia. Cambridge, UK. Contact: David.Rootes@poles.apart.org . or rwburton@ntlworld.com .
24	November	2003	Total solar eclipse. Queen Mary and Dronning Maud Land, Antarctica.

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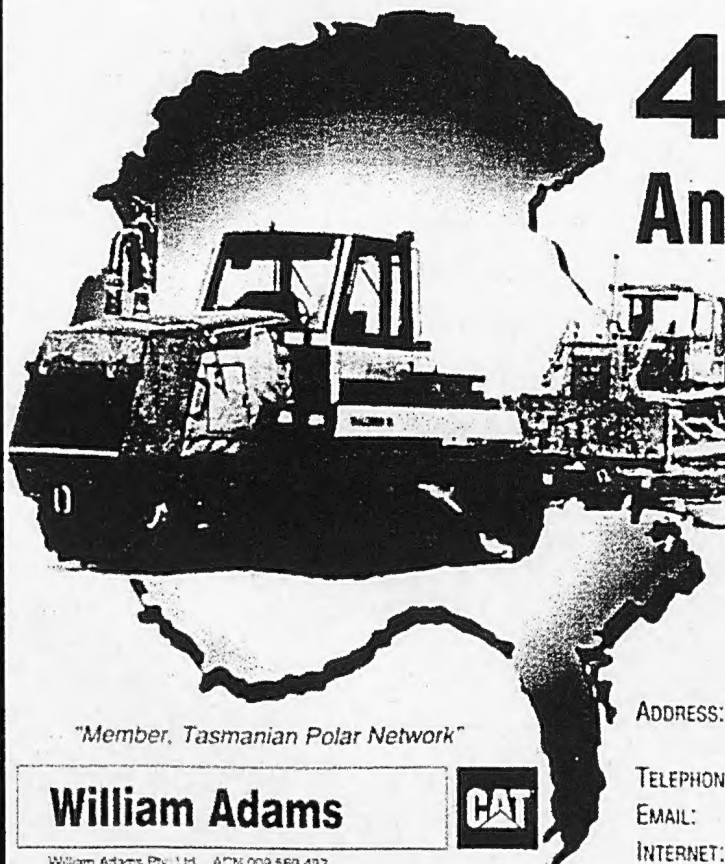
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ANTARCTIC AND SOUTHERN OCEAN SHIPPING CALENDAR

1-2	March	2003	AK. SHOKALSKI V5.2	Macquarie Island.
1-4	March	2003	POLAR BIRD V7	Casey Base.
2-3	March	2003	AURORA AUSTRALIS V5	Mawson Base.
7	March	2003	AK. SHOKALSKI V5.2	Arrives Bluff, NZ.
13	March	2003	POLAR BIRD V7	Arrives Hobart. Off-hire.
15-17	March	2003	AURORA AUSTRALIS V5	Arrives Hobart, departs Hobart.
20-25	March	2003	AURORA AUSTRALIS V6	Macquarie Island.
28	March	2003	AURORA AUSTRALIS V6	Arrives Hobart. Off-hire.

2003-2004 SEASON

1	September	2003	AURORA AUSTRALIS V1	Departs Hobart for Marine Science.
15	October	2003	AURORA AUSTRALIS V1	Arrives Hobart.
17	October	2003	AURORA AUSTRALIS V2	Departs Hobart for Casey Base.
27-30	October	2003	AURORA AUSTRALIS V2	Casey Base.
7	November	2003	AURORA AUSTRALIS V2	Davis Base.
15	November	2003	AURORA AUSTRALIS V2	Mawson Base.
22	November	2003	[to be selected] V3	Departs Fremantle, W.A. for Heard Island.
28	November	2003	AURORA AUSTRALIS V2	Arrives Fremantle, W.A.
1	December	2003	AURORA AUSTRALIS V4	Departs Fremantle for Marine Science.
1-4	December	2003	[to be selected] V3	Heard Island.
12	December	2003	[to be selected] V3	Arrives Fremantle.
30	December	2004	[to be selected] V5	Departs Hobart for Casey Base.
8-13	January	2004	[to be selected] V5	Casey Base.
19-24	January	2004	[to be selected] V5	Davis Base.
23-25	January	2004	AURORA AUSTRALIS V4	Davis Base.
24	January	2004	{to be selected] V6	Departs Fremantle for Heard Island.
27	January	2004-	[to be selected] V5	Mawson Base.
1	February	2004		
2-6	February	2004	[to be selected] V6	Heard Island.
4	February	2004	AURORA AUSTRALIS V4	Arrives Hobart.
12	February	2004	[to be selected] V5	Arrives Hobart. Off hire.
14	February	2004	[to be selected] V6	Arrives Fremantle. Off hire.